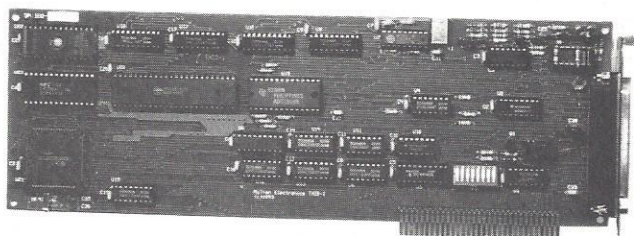
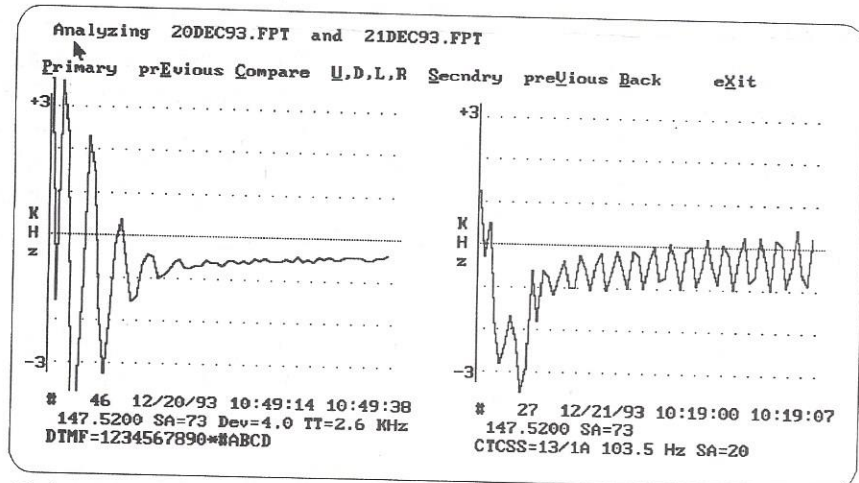


# TxID-1

## Transmitter FingerPrinting System



When keyed, every transmitter exhibits a unique frequency versus time characteristic before it stabilizes on its operating frequency, making it possible to identify a particular transmitter by means of capturing and displaying the frequency versus time history. The TxID-1 was developed to offer a means of "FingerPrinting" keyed FM or AM transmitters. Together with the provided software, the TxID-1 will capture, store and display a transmitter's FingerPrint on an IBM/Compatible desktop computer. This offers an excellent means of combating the abuse often experienced by commercial and amateur radio FM repeaters or simplex frequencies by unidentified stations.



This is an example of the TxID Software Comparison feature. The fingerPrints shown were actually captured by the TxID-1.

and displayed. This includes DTMF/CTCSS and DCS signals with separate peak deviation readings. The TxID-1 will also determine the received signal strength, when connected to the receiver's AGC circuitry. When appropriately connected to the ICOM R-7000, R-7100 or the AOR AR-3000 computer-controlled receivers, the TxID-1 can capture the frequency of operation, as well as set the frequency. The TxID-1 has a built in CI-V interface for Icom Radios.

An additional feature of the TxID-1 allows the option of FingerPrint storage on audio tape, along with the audio from the transmission. The tape recorder is controlled by an onboard relay and the audio is digitally delayed, allowing the recorder speed to stabilize. The digitally encoded FingerPrint data is also recorded on the tape.

Software is supplied with the TxID-1 for FingerPrint capture and analysis. The capture feature works along with the TxID-1 to obtain, display and store the FingerPrint along with the date, time, frequency, signal strength, DTMF, CTCSS/DCS and peak deviation information. A graphic display of the FingerPrint is displayed on the left hand side of the screen and the data is automatically or manually stored to disk. Descriptive information, such as a call sign, can be added to the stored data. Real-time comparisons are also possible. The FingerPrint can be copied onto the right hand side of the screen. It can then be overlaid onto any subsequent FingerPrint displayed on the left. A spectrum occupancy program will scan and graph usage of up to 256 frequencies with computer controlled radios presently supported by the software.



The analysis feature lets you compare the captured FingerPrints. Comparisons can be made between two data files, or within one file. In addition to the annotation and overlay features, individual FingerPrints can be copied from one file to another. When overlaid for comparison, one print can be moved up, down left and right.

The TxID-1 circuit card must be installed in an expansion slot of an IBM/Compatible computer. Minimum requirements are an XT and one disk drive but a 386 with hard-drive is recommended. The software requires a minimum of 512K RAM and DOS 2.11 or later. Both a graphics video card and a graphics monitor are required. Although a CGA monitor can be used, a color EGA or VGA monitor is recommended.

Some technical expertise is required to install the TxID-1 as your receiver must be slightly modified. A direct connection to the discriminator of your receiver is required. An additional connector may need to be installed on the radio to bring the signal out. When the TxID-1 is used in conjunction with a repeater, it must be connected to a receiver tuned to the input. FingerPrinting the output will only give you the characteristics of the repeater itself, not the transmitter being repeated.

The FingerPrint of a transmitter has unique, repeatable characteristics. This is not an exact science, however, as the FingerPrint will not repeat point for point the same every time. This makes it difficult to develop software to automatically recognize FingerPrints. Visual comparison is necessary, but you will find it to be relatively easy to distinguish one transmitter from another, including transmitters of the same make and model. We think you will find this product to be a very valuable tool in fighting against the growing problems of radio abuse.

The TxID-1 is licensed to be manufactured under U.S. Patent number 5,005,210. Purchase and use of this product grants sublicense to the purchaser to practice the methods protected under this patent.

## **TxID-1 with Software \$699.00**

Shipping/Handling UPS Ground USA: \$8.00

Visa/MC and AMEX accepted. COD on cash or Money Order basis only.

Government Purchase Orders accepted.

An export license is required for all foreign countries except NATO, Japan, Australia and New Zealand.  
Additional shipping and insurance charges for foreign orders.  
Price and Specifications subject to change without notice.

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Fax: (503) 687-2492

# **MOTRON**

## **ELECTRONICS**

310 Garfield St Suite 4

PO Box 2748

Eugene, Oregon 97402